

What is claimed is:

1. A system for controlling fuel vapor recirculation during refueling of a tank from a dispensing nozzle during refueling of a tank from a dispensing nozzle comprising:
  - (a) a filler tube with a means for sealing about the nozzle;
  - (b) a means defining a vapor recirculation path from the tank to the filler tube at a location downstream of said means for sealing about the nozzle;
  - (c) a vapor storage device disposed externally of the tank and connected to receive fuel vapor from the tank; and,
  - (d) a flow control valve disposed in said recirculating path, said flow control valve responsive to a predetermined pressure differential across the valve to change from a first relatively low flow rate to a second substantially higher flow rate.
2. The system defined in claim 1, wherein said flow control valve includes a valve obturator moveable between an open and closed position with a passage therethrough providing said first flow rate when said obturator is in said closed position, said obturator providing said second flow rate in said open position.
3. The system defined in claim 1, wherein said flow control valve includes a piston having a passage therethrough.
4. The system defined in claim 1, wherein said recirculation path includes a float operated valve is disposed fluidically in series with said flow control valve;

5. The system defined in claim 4, wherein said flow control valve and said float operated valve are mounted in a common housing through an access opening in the tank.
6. The system defined in claim 5, wherein said flow control valve and said float operated valve are mounted in vertically aligned arrangement.
7. The system defined in claim 1, wherein said flow control valve wherein said flow control valve is operative to change to said second flow rate at a pressure differential thereacross of about 1 kPa (4 in. H<sub>2</sub>O).

8. A method of controlling fuel vapor recirculation during refueling of a tank from a dispensing nozzle comprising:
  - (a) providing a tank filler tube with a nozzle receiving cup end disposing an annular seal in the cup and sealing about the nozzle upon insertion therein;
  - (b) providing a vapor recirculation passage from the tank to the filler tube cup downstream of the nozzle seal;
  - (c) disposing a pressure responsive flow control valve in said recirculation passage and changing the rate of flow in said passage from a first rate to a second significantly higher rate when said valve experiences a predetermined pressure differential thereacross.
9. The method defined in claim 8, wherein said step of disposing a flow control valve includes disposing a valve with an obturator having a passage therethrough; and, said step of changing the rate includes moving the obturator between an open and closed position.
10. The method defined in claim 8, further comprising disposing a float operated valve in said recirculation line.
11. The method defined in claim 10, wherein said step of disposing a float operated valve includes disposing said flow control valve and said float operated valve in a common housing.
12. The method defined in claim 11, wherein said step of disposing in a common housing includes mounting said housing through an access opening in the tank.

13. The method defined in claim 8, wherein said step of disposing a flow control valve includes disposing a valve with a moveable piston and forming a passage through the piston for providing the first flow rate.
14. The method defined in claim 8, further comprising disposing a float operated valve vertically aligned with said flow control valve.